



**UNITED STATES DEPARTMENT OF THE INTERIOR
GRAND CANYON-PARASHANT NATIONAL MONUMENT**

345 East Riverside Drive

St. George, Utah 84790

Phone: (435) 688-3345 Fax: (435) 688-3388

In reply refer to:
2920(130)/AZA-27495

July 26, 2006

**NOTICE OF AVAILABILITY
Big Spring Pipeline Reconstruction/Trough Installation**

Dear Interested Party:

Please be advised that an Environmental Assessment (EA) EA-AZ-130-2006-0026 was prepared for the proposed Big Spring Pipeline Reconstruction/Trough Installation. This EA is a public document, and it is available for your review and comment.

The proposed action would allow for the reconstruction of the Big Spring water pipeline and installation of two short spur lines for troughs in three stages (see map). Each stage would be finished per year so that the total project would be finished in three years. Stage I consists of replacing 30,000 feet of pipeline within a leased area for that purpose (AZA-27495). The proposed type of pipe is two inch outside diameter high density polyethylene which is the best for the terrain and the water pressures involved and would meet ADEQ standards. All equipment (backhoe and/or trencher where possible) and operations would be within the dimensions of the lease and the pipeline would be replaced in the same location as the existing pipeline. Approximately 1.25 miles of this portion of the pipeline is within the Mt. Logan Wilderness. Stage II (Whitmore Wash) would consist of replacing approximately 15,000 feet of pipeline south of the Bar Ten Ranch headquarters with an inch and a quarter PVC schedule 40 and installation of two 1/4 mile spur lines for two troughs. Stage III (Bull Wash) would consist of replacing approximately 12,000 feet of pipeline from the Big Spring Lease pipeline west to Bull Wash with inch and a quarter HDPE pipe because of the rocky nature of the terrain and pressures involved. The majority of work would be completed in late fall, winter, and early spring each year.

Under the No Action alternative, the existing pipeline would continue to deteriorate and water quality standards would not be met as required by the terms and conditions of the lease. The pipeline would ultimately break possibly causing resource damage and water would not be delivered to the authorized locations. The alternative of rerouting that portion of the pipeline between Big Spring and the cherry-stemmed road through the wilderness was explored. The purpose of rerouting would be to relocate as much of the pipeline as possible to the cherry-stemmed road outside of Mt. Logan Wilderness. To use this alternative, approximately one mile of new pipeline construction would be necessary within the existing roadway. The extremely rocky conditions at the switchbacks, uphill grades that could prevent gravity flow, and the extent of disturbance to soil and vegetation required to reroute the pipeline made this alternative infeasible and was not considered further.

The proposed action is in conformance with the Arizona Strip Resource Management Plan (1992), as amended, and includes mitigation measures to protect scenic values and watershed.

Copies of the EA are available upon request from, and written comments may be submitted to, Laurie Ford, above address, phone (435)688-3271, or email laurie_ford@blm.gov. This EA has also been posted on the Arizona Strip District's web home page <http://www.blm.gov/az/asfo/index.htm>. The deadline for receipt of comments is August 28, 2006. Public comments are welcome and encouraged.

By law, the names and addresses of those commenting are available for public review during regular business hours. However, individual commentors may request that their name and/or address be withheld from the record. These requests will be honored to the extent allowable by law. If you wish your name and/or address withheld, you must state this prominently at the beginning of your comment letter. All comments from organizations or businesses will be available for public inspection in their entirety.

Sincerely,

Dennis Curtis
BLM GCPNM Manager

Jeffrey S. Bradybaugh
NPS GCPNM Superintendent

ASFO NEPA DOCUMENT ROUTING SHEET

Number: AZ-130-2006-0026

Project Title: Big Spring Pipeline Reconstruction/Trough Installation

Project Lead: Laurie Ford/Whit Bunting

Date that any scoping meeting was conducted: May 8, 2006

Date that concurrent, electronic distribution for review was initiated: May 12, 2006

Deadline for receipt of responses: **Thursday, June 2, 2006**

ID Team/Required Reviewers will be determined at scoping meeting or as a default the following:

Gloria Benson, Native American Coordinator

Tom Folks, Recreation/Wilderness/VRM

Laurie Ford, Lands/Realty/Minerals

Michael Herder, Wildlife/T&E

John Herron, Cultural

Lee Hughes, Special Status Plants

Ray Klein, GCPNM Supervisory Ranger

Linda Price, S&G

Bob Sandberg, Range/Vegetation

Richard Spotts, Environmental Coordinator

Ron Wadsworth, Supervisory Law Enforcement

L.D. Walker, Weed Coordinator

Relevant Managers: Dennis Curtis, BLM/GCPNM, Jeff Bradybaugh, NPS/GCPNM

Required Recipients of electronic distribution e-mails only (not reminders):

Andi Rogers, Arizona Game and Fish Department

Rick Miller, Arizona Game and Fish Department

Discretionary Reviews:

Michelle Bailey, GCPNM Recreation

Notice of Availability sent to interested public on mailing list on July 25, 2006.

United States Department of the Interior
Bureau of Land Management (BLM)

Arizona Strip District
Grand Canyon-Parashant National Monument

Environmental Assessment (EA)
AZ-130-2006-0026
Big Spring Pipeline Reconstruction/Trough Installation

I. INTRODUCTION

This EA analyzes the proposed reconstruction of the Big Spring water pipeline and installation of two new ¼ mile spur lines for troughs. Initially developed for livestock watering purposes, Big Spring's water is currently used for both livestock and domestic purposes. This pipeline is authorized by permit and cooperative agreement under Section 4 of the Taylor Grazing Act and by lease under the Federal Land Policy and Management Act, as amended.

Purpose and Need

Big Spring is the primary water source for grazing operations in Whitmore Canyon and is the most significant base water for the Big Spring Pipeline Allotment. In addition, Big Spring is the sole water source for the Bar Ten Lodge located on private land in Whitmore Canyon. Currently, there is approximately 60,000 feet of pipeline that has aged past the point of repair. This has made it difficult to maintain grazing and water quality standards. To meet these standards, the existing pipeline infrastructure needs to be updated by replacing it and installing two new ¼ mile spur lines for two troughs. This would allow for reliable water delivery to different parts of the Allotment and the Bar Ten Lodge. This action would also address a recommendation from the Standards and Guidelines Rangeland Resource Team to relocate two livestock watering points in the bottom of Whitmore Canyon to the upland toe slopes of the canyon.

Issues

Effects of the proposed pipeline reconstruction on Grand Canyon-Parashant National Monument objects and/or wilderness characteristics in the Mt. Logan Wilderness.

Conformance with Land Use Plan

The Proposed Action and alternative described below are subject to the Arizona Strip Resource Management Plan/Environmental Impact Statement (RMP/EIS), as amended. They are in conformance with the following decisions:

Decision WS05 – Ensure where possible, that all waters on public lands meet or exceed established federal and state water quality standards for specific uses and mitigate activities to prevent water quality degradation.

Decision WD01 – Continue managing the Paria Canyon-Vermilion Cliffs, Mt. Trumbull/Mt. Logan, and Cottonwood Point Wilderness areas in accordance with their activity management plans.

Management actions in the Mt. Trumbull/Mt. Logan Wilderness Management Plan which apply to the proposed action are:

- Maintain range improvements using the minimum tool concept.
- Negotiate for acquisition of the 40-acre parcel of private land at Big Spring. Unless or until the parcel is acquired, access is exclusive to the landowner and is by way of the Lower Big Spring Road. The frequency of motorized access is to be that which is necessary for the landowner to serve the purposes for which the land is used.
- Appendix D – Range Improvement Maintenance Authorization; Big Spring and Pipeline, T34N, R8W, S19, 30, 31, 32; Ingress/Egress on existing road to private land. Pipeline through Secs. 30, 31, 32 is nonmotorized. (Pipeline has been dismantled and removed in Secs. 30, 31, and 32.)

It has been determined that the proposed action and alternative would not conflict with other decisions throughout the plan.

Grand Canyon-Parashant National Monument

The Big Spring water pipeline is within the Grand Canyon-Parashant National Monument. The presidential proclamation states, “The establishment of this monument is subject to valid existing rights.”

Interim Management Policy (IM 2002-008) provides the following: “Surface Disturbance and Reclamation Activities under Current Permits: Surface disturbance and reclamation activities under current permits should proceed consistent with those permits. Permit extensions will be considered subject to consistency with applicable policies, laws, and proclamation.”

Under the Antiquities Act, BLM must protect objects identified in the presidential proclamations that establish national monuments. Therefore, if BLM determines, through the current planning process or otherwise, that any monument objects are harmed by current management, then management (including permit conditions) would be modified accordingly, but any modification must respect valid existing rights.

Relationships to Statutes, Regulations, or other Plans

The Proposed Action and alternative are consistent with federal, state, and local laws, regulations, and plans to the maximum extent possible.

The Arizona Department of Environmental Quality (ADEQ), Water Quality Division has the responsibility to ensure that Arizona's public water systems deliver safe drinking water.

The proposed pipeline reconstruction conforms to the President's National Energy Policy and would not have adverse energy impacts. This action would not deny energy projects, withdraw lands, close roads, or in any other way deny or limit access to mineral materials to support energy actions.

II. PROPOSED ACTION AND ALTERNATIVES

Alternative A - Proposed Action

The proposal is to reconstruct the Big Spring water pipeline in three stages (see attached map). Each stage would be finished per year so that the total project would be finished in three years time.

Stage I (Big Spring Pipeline Lease) would consist of replacing 30,000 feet of pipeline which lies within a leased area for that purpose (AZA-27495) over a period of approximately three months. This phase would be a joint venture between the lease holder, the National Resource Conservation Service (NRCS) and the BLM, with the NRCS providing half of the funds, engineering, and inspections. The remaining funds, physical labor, and applications would be provided by the lease holder. The BLM would provide access along existing roads and input as to the placement of watering points. The proposed type of pipe for this stage is two inch outside diameter high density polyethylene. This is the best pipe for the terrain and the water pressures involved and would meet ADEQ standards. All equipment and operations would be within the dimensions of the lease and the pipeline would be replaced in the same location as the existing pipeline. The reclamation process would consist of disposing of the old pipeline and trash in an approved waste facility, as well as, incorporating erosion features such as water bars and strategic placement of rocks. Approximately 1.25 miles of this portion of the pipeline is within the Mt. Logan Wilderness. Work in wilderness is expected to take approximately two weeks.

Stage II (Whitmore Wash Section) would consist of replacing approximately 15,000 feet of pipeline south of the Bar Ten Ranch headquarters, also known as Woods Tank, over a period of approximately one month. Also, two new ¼ mile spur lines for two troughs would be installed on the east and west sides of the pipeline, just north of the landing strip. This would provide for better livestock distribution out of the canyon bottom and provide more dependable water sources for wildlife. Access would be limited to the new spur lines and would terminate at the trough locations. After spur lines and troughs are installed, rock barriers would be placed across the spur line routes to prevent the access from becoming a new road. No new roads would be constructed and future access along the new spur lines would be limited to that necessary to maintain the pipelines and troughs. The same entities would be involved under the same agreements as Stage I. This pipeline would be an inch and a quarter PVC schedule 40 and reclamation would be in the same manner as Stage I.

Stage III (Bull Wash Section) would consist of replacing approximately 12,000 feet of pipeline from the Big Spring Lease pipeline west to Bull Wash over a period of approximately one month. The same entities would be involved under the same agreements as Stage I and Stage II. It is proposed to use inch and a quarter HDPE pipe in this section because of the rocky nature of the terrain and pressures involved. The reclamation process would be the same as Stage I and Stage II.

Pipeline would be installed using a dozer ripper and/or trencher on all portions within the Lake Mead National Recreation Area and all other areas where terrain permits. In those sections of BLM administered land where the terrain is too rough for the trencher, a backhoe or small trackhoe would be used.

Alternative B –No Action

Under the No Action alternative, the existing pipeline would continue to deteriorate and water quality standards would not be met. The pipeline would ultimately break possibly causing resource damage and water would not be delivered to the authorized locations. Terms and Conditions of the lease (43 CFR part 2920.7(4)) which require compliance with State standards for public health and safety would not be met.

Alternatives Considered but Eliminated from Detailed Analysis

The alternative of rerouting that portion of the pipeline between Big Spring and the cherry-stemmed road through the wilderness was explored. The purpose of rerouting would be to relocate as much of the pipeline as possible to the cherry-stemmed road outside of Mt. Logan Wilderness and would allow for easier access for future maintenance. To use this alternative approximately one mile of new pipeline construction would be necessary within the existing roadway. The extremely rocky conditions at the switchbacks, uphill grades that could prevent gravity flow, and the extent of disturbance to soil and vegetation required to reroute the pipeline made this alternative infeasible and was not considered further.

III. AFFECTED ENVIRONMENT

General Setting

The Big Spring water pipeline is located approximately 65 miles south of St. George, Utah, within the Grand Canyon-Parashant National Monument on the Arizona Strip. The pipeline originates at the spring source on 40 acres of private land within the Mt. Logan Wilderness and terminates at the lower end of Whitmore Canyon, some 8.5 miles to the south. The initial 1.25 miles of pipeline are inside wilderness boundaries. The remaining 7.25 miles are outside of the wilderness and follow existing road corridors. The pipeline route crosses several sections within the following described area:

Gila and Salt River Meridian, Mohave County, Arizona

T. 34 N., R. 8 W.,

sec. 19, SW1/4NE1/4, SE1/4NW1/4, N1/2SW1/4, SW1/4SW1/4.

T. 33 N., R. 9 W.,

sec. 1, NW1/4NW1/4;

sec. 2, E1/2NE1/4, N1/2NW1/4, SW1/4NW1/4, W1/2SW1/4, NE1/4SE1/4;

sec. 11, S1/2SW;

sec. 14, NW1/4NE1/4, N1/2NW1/4, SE1/4NW1/4, E1/2SW1/4;

sec. 15, NE1/4NE1/4;

sec. 22, E1/2SE1/4;

sec. 23, E1/2NW1/4, N1/2SW1/4;

sec. 27, NE1/4, W1/2SE1/4;

sec. 34, W1/2NE1/4, SE1/4.

T. 34 N., R. 9 W.,

sec. 24, S1/2SE1/4;

sec. 25, NW1/4NE1/4, NE1/4NW1/4, S1/2NW1/4, NW1/4SW1/4;

sec. 26, S1/2;

sec. 27, S1/2;

sec. 35, NE1/4, SE1/4NW1/4, E1/2SW1/4, SW1/4SW1/4, NE1/4SE1/4;

sec. 36, W1/2SW1/4.

Elevations range from 6,600 at Big Spring to 3,400 feet in Whitmore Canyon. Topography along the pipeline route is rough and broken, particularly near the spring origin. Relatively flat ridge tops with abrupt breaks along the drainages are characteristic of the project area. The upper end of the project area near Big Spring consists of basalt capped Moenkopi mudstones and limestone at the upper end and sandstone and limestone canyons at the lower end. Gypsum hills and ridges with associated alluvial fans and floodplains are also characteristic of the lower end of Whitmore Canyon.

Climate

Average annual precipitation over the project area falls into two zones. Higher elevations near the spring are within a 14-18" precipitation zone (p.z.). Data collected at the Side of Mountain rain gauge located in T. 35 N., R. 9 W., sec. 6, some 6 miles away, shows seasonal distribution is 20 percent (~3.20") in the fall, 26 percent (~4.16") in the winter, 21 percent (~3.36") in spring, and 33 percent (~5.28") during the summer.

The lower reaches of Whitmore Canyon and Cold Spring Canyon are in a 7-11" precipitation zone. The Pa's Pocket rain gauge provides reference rain fall data for this zone. It is located in T. 33 N., R. 9 W., sec. 26. Average precipitation is ~ 10.81" annually. Approximately 17 percent (1.88") is distributed in the fall, 32 percent (3.47") in the winter, 20 percent (2.16") in spring, and 31 percent (3.30") during the summer.

Vegetation

The principal vegetative subtypes within the project area are pinyon-juniper woodlands, sagebrush, and desert shrub land.

- The pinyon-juniper subtype includes pinyon, juniper, sagebrush, cliffrose, turbinella oak, banana yucca, blue grama, squirreltail and various annual/perennial forbs.
- Associated species in the sagebrush subtype are big sagebrush, ephedra, cliffrose, fourwing saltbush, snakeweed, blue grama, squirreltail, galleta, and a mixture of forbs.
- The desert shrubland subtype is characterized by Mormon tea, banana yucca, snakeweed, prickly pear and cholla cactus, galleta, sand dropseed and black grama.

Within these vegetative subtypes are four ecological sites¹ that are part of the Major Land Resource Units, as defined by the NRCS. These ecological sites are defined as Clay Loam Upland 14-18" p.z., Clay Loam Upland (Gravelly) 13-17" p.z., Shallow Loamy 10-14" p.z., and Gypsum Fan 7-11" p.z.

Water Sources/Quality

The entire water supply at Bar Ten Lodge in Whitmore Canyon originates at Big Spring and is distributed through the Big Spring pipeline. The pipeline also has the existing infrastructure, when functional, to supply water at nine different drinking troughs throughout the Big Spring Pipeline Grazing Allotment.

It is the Arizona Department of Environmental Quality (ADEQ), Water Quality Division's responsibility to ensure that Arizona's public water systems deliver safe drinking water. The water system at the Bar Ten Lodge would be categorized as a Public Water System because it serves 25 or more people and, thereby, must comply with all requirements of the Safe Drinking Water Act. As defined by the Arizona Administrative Code R18-4-101, the Bar Ten Lodge water system is categorized as a "transient, non-community water system" as follows:

A "transient, non-community water system" is one that serves 15 or more service connections, but does not serve 15 or more service connections that are used by the same persons for more than six months per year; or one that serves an average of at least 25 persons per day for at least 60 days per year, but does not serve the same 25 persons for more than six months per year. Examples include businesses where the average person will not be drinking the water for long periods of time, such as truck stops, restaurants or campgrounds. Because of the short exposure times involved, typically these systems only monitor for acute contaminants such as nitrates or bacteria.

Threatened and Endangered (T&E) Species

There is no suitable habitat for any listed T&E species within the project area. However, the bald eagle (*Haliaeetus leucocephalus*), and the California condor (*Gymnogyps californianus*) may occasionally fly over the area. There are no riparian areas on federal lands that would provide habitat for the southwestern willow flycatcher (*Empidonax trailii extimus*). An experimental non-essential population (as defined under section 10J of the Endangered Species Act) of California condors was established on the Vermilion Cliffs in 1996. These birds may eventually forage on carrion within the project area, but have not yet been observed doing so.

¹ An ecological site is a distinctive kind of land that differs from other kinds in its ability to produce a characteristic plant community. Each ecological site is a product of all environmental factors responsible for its development. Each site is capable of producing and supporting a plant community typified by an association of species that differs from other ecological sites in species kind, proportion and total production.

Soil

The only soils monitoring data for this area is the Phase 1 Watershed Conservation and Development Inventory of 1971-1973 (See Field Office Files 7300). It was based upon a general soils map and thus ended up as broad interpretations and averages over large areas. Other more specific and detailed soils information is as follows:

Soil Map Unit Index (623)

- 08 Barx fine sandy loam, 1 to 5 percent slopes, (fan terraces), mixed; Loamy Upland, 9" to 13"
- 10 Berzatic fam-RO-Goblin complex, 35 to 70 percent slopes, (escarpments, cliffs), LS-gyp; Berzatic=Breaks, 7" to 11"; Goblin=Breaks (gypsiferous), 7" to 11"
- 14 Boquillas family-Showlow complex, 25 to 50 percent slopes, (basalt mesas), basalt, shale; Basalt Slopes, 13" to 17"
- 20 Dermalia fam-Guy fam-Rock Outcrop complex, 10 to 40 percent slopes (mesa scarp) basalt; Basalt Slopes, 13" to 17"
- 45 Mellenthin-Rock outcrop-Torriorthents complex, 10 to 70 percent slopes (hills) Kaibab; Mellenthin=Shallow Loamy, 9" to 13"; Torriorthents=Breaks, 9" to 13"
- 46 Mellenthin-Strych Complex, 4 to 25 percent slopes, cool, (plateaus, mesas), limestone; Mellenthin=Shallow Loamy, 9" to 13"; Strych=Loamy Upland, 9" to 13"
- 48 Mellenthin-Tanbark complex, 5 to 50 percent slopes, cool (mesas, hills) Kiabab, Harrisburg; Mellenthin=Shallow Loamy, 9" to 13"; Tanbark=Gypsum Hills, 9" to 13"
- 51 Meriwhitica-Rock outcrop-Strych complex, 35 to 70 percent slopes, (cliffs, canyons) Callville & Redwall limestones; Meriwhitica=Breaks, 9" to 13"; Strych=Loamy
- 55 Moenkopie-Pennell-RO complex, 10 to 50 percent slopes, (plateau, mesa), limestone; Shallow Loamy, 7" to 11" ppt
- 58 Nutter-Gypocket complex, 2 to 20 percent slopes, (fan terraces), gyp-alluvium; Gypsum Upland, 7" to 11" ppt
- 66 Robroost fine sandy loam, 1 to 3 percent slopes, (fan terrace), mixed sedimentary; Gypsum Fan, 7" to 11"
- 68 Sedillo very cobbly loam, 1 to 8 percent slopes, (fan terrace), mixed alluvium; Clay Loam Upland, 9" to 13" ppt
- 69 Showlow-Thunderbird complex, 2 to 25 percent slopes, (basalt mesas), basalt; Clay Loam Upland (gravelly) PJ-Woodland, 13" to 17"
- 72 Springerville-Delenbaw complex, 3 to 25 percent slopes (mesa) basalt; Springerville and Delenbaw=Clay Loam Upland (gravelly) PJ-Woodland, 13" to 17"
- 75 Tanbark loam, 15 to 75 percent slopes, (hills, escarpments), Moenkopi; Gypsum Hills (calcareous), 9" to 13"
- 83 Twist very cobbly loam, 1 to 8 percent slopes, (fan terrace), mixed alluvium; Clay Loam Upland, 7" to 11" ppt

Soil Map Unit Index (625)

- 1 Badland, steep to very steep eroding gyp areas, (hills, scarps), Moenkopi; No Ecosite assigned, but consider a cryptogamic site.
- 59 Showlow very cobbly clay loam, 1 to 15 percent slopes, (hills, fan terraces), basalt, pyroclastics; Clay Loam Upland (PJ-Woodland), 14" to 18" ppt
- 61 Sponiker gravelly loam, 1 to 15 percent slopes, (hills, fan terraces), basalt, pyroclastics; Loamy Upland (PIPO-Woodland), 18" to 30" ppt
- 66 Whiskey silt loam, 1 to 4 percent slopes, (stream terraces) mixed alluvium; Loamy Upland, 14" to 18" ppt
- 67 Wukoki-Lomaki complex, 15 to 50 percent slopes, (cinder cones), scoriaceous basalt, pyroclastics; Cinder Hills, 10" to 14" ppt
- 68 Wutoma-Lozinta complex, 1 to 15 percent, slopes, (fan terraces), scoriaceous basalt, pyroclastics; Cinder Upland (PJ-Woodland), 14" to 18" ppt
- 69 Wutoma-Lozinta complex, 15 to 50 percent slopes, (cinder cones), scoriaceous basalt, pyroclastics; Cinder Hills (PJ-Woodland), 14" to 18" ppt

The watershed area within the pipeline area was classified as Category IV in the 1992 RMP. This category includes watershed units that are less resistant to erosion, but would be responsive to treatment. Most of the pipeline route demonstrates good resistance to erosion.

Cultural/Historical

Prehistoric and Historical sites exist throughout the general area.

Visual Resources

The 1992 RMP classified this area as Visual Resource Management (VRM) Class I and II. VRM Class I and II represent lands where projects and actions create the least amount of visual contrast with the existing landscape.

Livestock Grazing

The proposed project is located in the Big Spring Pipeline Allotment (#4870). The allotment consists of 39,141 acres of federal BLM land, 13,680 acres of federal Lake Mead National Recreation Area land, 1,280 acres of state land, and 403 acres of private land. The total number of active AUMs on the allotment is 2,556. The current season of use is March 1 to February 28. Big Spring is a base water for the grazing permit and is critical for the overall grazing operation in the area.

Recreation Resources

The Big Spring and Whitmore Canyon areas are considered to have recreation value for their scenic qualities, remoteness, and solitude. General recreation activities include: recreational OHV use, driving for pleasure, camping, hunting, photography, bird watching, and hiking. This area was classified as having the following Recreation Opportunity Spectrum Classes: Primitive, Semi Primitive – Non Motorized, Semi Primitive - Motorized, and Roaded Natural. Recreation resources are further described in the Mt. Trumbull/Mt. Logan Wilderness Management Plan, 1990.

Wilderness

The upper segment of the pipeline (1.25 miles) is within the Mt. Logan Wilderness. This area of recent volcanic origin contains Mt. Logan and portions of the Uinkaret Mountains. It includes basalt flows and ledges, ponderosa pine forests, pinyon-juniper woodlands, and a large, colorful, naturally eroded amphitheater known as Hell Hole. Wilderness resources are further described in the Mt. Trumbull/Mt. Logan Wilderness Management Plan, 1990.

Noxious Weeds

There are no known infestations of noxious weeds in the project area. Over the past several years, there have been concerted efforts to inventory and monitor any weed populations. To this point, no noxious weeds have been detected in the project area (ASDO Scoping Meeting Report 5/8/2006).

Socio/Economic

Economic revenue generated from this area of the Arizona Strip is mainly the recreation concession at Bar Ten Lodge and ranching. A few gypsum/selenite mines and uranium operations occur in other locations, but are not present in the proposed project area. Nearby communities are supported by tourism (including outdoor recreation), construction, and light industry. The social aspect involves remote, unpopulated settings with moderate to high opportunities for solitude.

Critical Elements

The following critical elements of the human environment are not affected by the proposed action or alternatives or are not present: air quality, areas of critical environmental concern, farm lands (prime or unique), floodplains, environmental justice, wastes (hazardous or solid), wetlands/riparian zones, wild horses/burros, minerals, and wild and scenic rivers.

The following critical elements are present in the project area, but would not be adversely affected by the proposed action or alternative(s): Cultural and Native American religious concerns – The pipeline would be replaced within the existing location.

Critical elements, which could be affected by the proposed action or alternative(s), brought forward for further analysis are: Water Quality (drinking/ground), Threatened, Endangered or Candidate Species, Cultural Resources, Livestock Grazing, and Wilderness. They will be described in detail below.

IV. ENVIRONMENTAL CONSEQUENCES

Alternative A - Proposed Action

Vegetation

Some pinyon-juniper, cliffrose, and oak brush vegetation that has over grown the initial pipeline route may need to be trimmed back and possibly removed within the wilderness portion of the pipeline. Vegetation clearing will be kept to the minimum necessary to accomplish the pipeline replacement and install new spur lines. Pinyon-juniper vegetation is thinner at the lower elevations. Some clearing of sagebrush and other shrubs and only minor vegetation removal, if any, would be necessary for the remainder of the project. These impacts would be considered minor.

Water Sources/Quality

Water quality for use by both the Bar Ten Lodge, livestock grazing, and wildlife would be improved through replacement of the pipeline. Water quality standards required by ADEQ would be met which is a requirement of the lease.

Threatened and Endangered (T&E) Species

Special status plants would not be affected by the proposal (ASDO Scoping Meeting Report 5/8/2006). No listed, proposed, or candidate species occur within the area of the proposed action. No such species would be affected by implementation of the proposed action. No species of migratory bird would be adversely affected by implementation of the proposed action (Herder 5/25/2006).

Soil

Soils in most of the pipeline route demonstrate good resistance to erosion. The proposed action includes the incorporation of erosion control features such as water bars and strategic placement of rocks where determined necessary during installation and as directed by the NRCS and BLM as a result of monitoring.

Cultural/Historical

A cultural resources inventory was conducted by a BLM archaeologist and para-archaeologist on May 17, 2006. No cultural resource properties were located on any of the inventory. No impacts to cultural resources would result from implementation of the proposed action as mitigated. Standard archaeological stipulations would apply to this project.

Visual Resources

The reclamation process would consist of disposing of the old pipeline and trash in an approved waste facility and the strategic placement of rocks along the pipeline route for a more natural appearance. No cut and fill work is proposed. In the Class I area, the level of change to the characteristic landscape as a result of the proposed project is expected to be very low and not attract attention. In the Class II area, the level of change to the characteristic landscape would be low. The pipeline installation is not expected to attract attention of the casual observer (see attached Visual Contrast Rating Worksheet).

Livestock Grazing

Implementation of the proposed action would provide a more reliable water system which would allow for better livestock distribution in the Big Spring Pipeline Allotment. Specifically, the proposed action would implement a recommendation from the Rangeland Resource Team made during the Standards for Rangeland Health field trip, which addressed livestock distribution and lessening livestock impacts in the bottom of Whitmore Canyon.

Recreation Resources

Recreational activities could be temporarily disrupted by project activities. However, work is proposed to be completed during mid-week in late fall, winter, and early spring to avoid conflicts with recreational users to the greatest extent possible. Because of the terrain and vegetative cover, visitors to the Bar Ten Ranch would likely not realize the proposed action is taking place. Impacts to recreation are expected to be minimal.

Wilderness

Wilderness values could be temporarily disrupted during Phase I of the proposed action. An ATV and backhoe or small trackhoe would be used for this portion of the pipeline for a duration in wilderness of approximately two weeks during late fall or winter. Work would be completed during mid-week to reduce the potential for project work to impact any visitors in the area. All equipment would be confined to the eight-foot width of the lease. All pieces of old pipe and any other discarded materials would be removed and disposed of at an approved waste facility. Improved installation and quality of pipe materials would reduce the frequency of maintenance or repair operations within the wilderness, thereby reducing the potential for impacts to naturalness and solitude in the long-term.

The option of using hand labor within wilderness was considered. To complete the work necessary, it would take an estimated two to three months with approximately 20 people. The terrain is very rocky and the vegetation is very thick in this area. The pipeline needs to be buried two feet deep to satisfy ADEQ standards. It would also be difficult to find 20 people who would be willing work for only two to three months doing hard labor in rough terrain in such a remote location for a minimum wage salary. Using the hand labor method would not require motorized equipment to be taken into wilderness, but it would result in a longer term disruption to naturalness and solitude in wilderness.

Noxious Weeds

Even though no known infestations of noxious weeds have been found to occur in the project area, standard stipulations regarding monitoring for noxious weeds and washing equipment prior to entering project area will be added to the lease and permit (ASDO Scoping Meeting Report 5/8/2006). Impacts are expected to be minimal.

Socio/Economic

If state water quality standards are not met, there could be significant impacts to the Bar Ten Lodge in lost revenue and possible fines imposed by the state. Visitors could become ill from drinking water that does not meet appropriate standards. Socio/economics are expected to benefit from implementation of the proposed project.

Cumulative Impacts

There are no other past, present, or reasonably foreseeable projects or uses proposed at this time in the project area that could potentially affect the same elements/resources. It has been determined that cumulative impacts would be negligible as a result of the proposed action or alternatives.

Alternative B - No Action

Vegetation

No vegetation would be disturbed until such time as a portion of the pipeline breaks. When maintenance does become necessary the impacts would be the same as Alternative A.

Water Sources/Quality

Water quality would remain the same and would continue to deteriorate along with the existing pipeline. Water quality standards would not be met as required by ADEQ and the terms and conditions of the lease.

Threatened and Endangered (T&E) Species

There would be no effect to federally listed threatened, endangered, or candidate species in the area covered by this EA.

Soil

There would be no effect to soils in the area covered by this EA until the pipeline weakens and breaks allowing water to run freely potentially eroding soils in the area of the break.

Cultural/Historical

A cultural resources inventory was conducted by a BLM archaeologist and para-archaeologist on May 17, 2006. There would be no impact to cultural resources.

Visual Resources

No changes to the existing characteristic landscape would occur with the No Action Alternative. There would be no impacts to visual resources.

Livestock Grazing

The water system would continue to be unreliable and distribution of livestock and the availability of water for wildlife within the Big Spring Pipeline Allotment would not be enhanced.

Recreation Resources

There would be no impact to recreation resources.

Wilderness

There would be no impact to wilderness values.

Noxious Weeds

Impacts would be the same as those described for the proposed action.

Socio/Economic

If the pipeline is not reconstructed, state water quality standards would not be met, there could be significant impacts to the Bar Ten Lodge in lost revenue and possible fines imposed by the state. Visitors could become ill from drinking water that does not meet appropriate standards. Water quality standards must be met to comply with the terms and conditions of the water pipeline lease.

Cumulative Impacts

Cumulative impacts would be the same as those described for the proposed action.

V. MONITORING/STANDARD STIPULATIONS

Monitoring of the pipeline system would consist of inspections by NRCS and BLM during construction of the three phases to ensure compliance with the terms and conditions of the Lease and permit. Periodic inspections would be conducted by BLM specialists on an annual basis or as determined necessary. Monitoring may also be conducted by the grazing permittee in cooperation with BLM specialists.

Standard Archaeological Stipulations

1. Any surface or sub-surface archaeological, historical, or paleontological remains discovered and not covered in the CRPR during construction, maintenance, or use shall be left intact; all work in the area shall stop immediately and the BLM Office Field Manager for the Arizona Strip District (435-688-3301) shall be notified immediately. Commencement of work shall be allowed upon clearance by the BLM Office Field Manager in consultation with the Archaeologist.
2. An additional archaeological survey shall be required in the event the proposed project location is changed, or additional surface disturbing activities are added to the project after the initial survey. Any such survey would have to be completed prior to commencement of the project.
3. If in connection with operations any human remains, funerary objects, sacred objects or objects of cultural patrimony as defined in the Native American Graves Protection and Repatriation Act (P.L. 101-601; 104 Stat. 3048; 25 U.S.C. 3001) are discovered, the proponent shall stop operations in the immediate area of the discovery, protect the remains and objects, and immediately notify the Field Office Manager. The proponent shall continue to protect the immediate area of the discovery until notified by the Authorized Officer that operations may resume.

Standard Noxious Weeds Stipulations

1. There is potential for the spread of noxious and invasive weeds from equipment contaminated with weed seed and/or biomass. To reduce this potential, the lease holder or his agents will thoroughly power wash and remove all vegetative material and soil before transporting equipment to the work site to help minimize the threat of spreading noxious and invasive weeds. This includes trucks, trailers, and all other machinery. The lease holder shall be responsible for the eradication of noxious weeds on disturbed areas within the limits of the work site during the contract period. The lease holder is responsible for

consultation with the authorized officer and local authorities for implementing acceptable weed treatment methods. Any use of chemical treatments will be made using only chemicals approved in BLM's EIS, by a state certified applicator who will abide by all safety and application guidelines as listed on the product label and Material Data Safety Sheet (MSDS). Any reclamation efforts requiring seeding will be done with certified, weed-free native seed.

2. Use of herbicides shall comply with the applicable Federal and state laws. Herbicides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of the Interior. Prior to the use of herbicides, the holder shall obtain from the authorized officer written approval of a plan showing the type and quantity of material to be used, weed(s) to be controlled, method of application, location of storage and mixing areas, method of cleansing and disposing of containers, and any other information deemed necessary by the authorized officer. Emergency use of herbicides shall be approved in writing by the authorized officer prior to such use.

VI. CONSULTATION AND COORDINATION

List of Preparers/Reviewers

Gloria Benson, Native American Coordinator
Tom Folks, Recreation
Laurie Ford, Lands/Realty/Minerals
Michael Herder, Wildlife
John Herron, Cultural
Lee Hughes, Plants
Ray Klein, GCPNM Supervisory Ranger
Linda Price, S&G
Bob Sandberg, Range
Richard Spotts, Environmental Coordinator
Ron Wadsworth, Supervisory Law Enforcement
L.D. Walker, Weed Coordinator
Whit Bunting, GCPNM Range
Michelle Bailey, GCPNM Recreation
Relevant Manager(s): Dennis Curtis, BLM/GCPNM; Jeff Bradybaugh, NPS/GCPNM
Andi Rogers, Arizona Game and Fish Department
Rick Miller, Arizona Game and Fish Department

Persons, Groups and Agencies Consulted

The list of individuals, groups, and agencies that were notified of the availability of the EA is located in the lease casefile AZA-27495.

Public Notice and Availability

A Notice of Availability will be sent to the interested public on our mailing list and this EA will be posted on the Arizona NEPA website.

VII. ATTACHMENTS

Location Map
Visual Contrast Rating Worksheet

**FINDING OF NO SIGNIFICANT IMPACTS
AND
DECISION RECORD
BIG SPRING PIPELINE RECONSTRUCTION/TROUGH INSTALLATION
EA-AZ-130-2006-0026**

FINDING OF NO SIGNIFICANT IMPACTS: Based on the analysis of potential environmental impacts contained in the attached environmental assessment, I have determined that impacts to the human environment are not expected to be significant and an environmental impact statement is not required.

DECISION: The Big Spring Pipeline Lease (AZA-27495) is authorized by Section 302 of the Federal Land Policy and Management Act of 1976 (90 Stat. 2762; 43 U.S.C. 1732) and is subject to the terms and conditions in 43 CFR 2920. The proposed reconstruction is considered maintenance and does not require an amendment of the Lease. The remaining portion of the Big Spring Pipeline and the new spur lines and troughs are authorized by Section 4 of the Taylor Grazing Act.

It is my decision to allow reconstruction of the Big Spring Pipeline in three stages. Each stage will be finished per year so that the total project will be finished in three years time. This project is a joint venture between the lease holder, the National Resource Conservation Service (NRCS) and the BLM, with the NRCS providing half of the funds, engineering, and inspections. The remaining funds, physical labor, and applications will be provided by the lease/permit holder. The BLM will provide access along existing roads and input as to the placement of watering points. The reclamation process will consist of disposing of the old pipeline and trash in an approved waste facility, as well as, incorporating erosion features such as water bars and strategic placement of rocks.

Stage I (Big Spring Pipeline Lease AZA-27495) - replace approximately 30,000 feet of pipeline over a period of approximately three months. Pipe for this stage will be two inch outside diameter high density polyethylene which is the best pipe for the terrain and the water pressures involved and would meet ADEQ standards. All equipment and operations will be within the dimensions of the lease (eight feet wide) and the pipeline will be replaced in the same location as the existing pipeline. Approximately 1.25 miles of this portion of the pipeline is within the Mt. Logan Wilderness. Work in wilderness is expected to take approximately two weeks.

Stage II (Whitmore Wash Section) - replace approximately 15,000 feet of pipeline south of the Bar Ten Ranch headquarters, also known as Woods Tank, over a period of approximately one month. Also, two new ¼ mile spur lines for two troughs will be installed on the east and west sides of the pipeline, just north of the landing strip to provide for better livestock distribution out of the canyon bottom and provide more dependable water sources for wildlife. Access will be limited to the new spur lines and will terminate at the trough locations. After spur lines and troughs are installed, rock barriers will be placed across the spur line routes to prevent the access from becoming a new road. No new roads will be constructed and future access along the new spur lines will be limited to that necessary to maintain the pipelines and troughs. This pipeline will be an inch and a quarter PVC schedule 40.

Stage III (Bull Wash Section) - replace approximately 12,000 feet of pipeline from the Big Spring Lease pipeline west to Bull Wash over a period of approximately one month. Inch and a quarter HDPE pipe will be used in this section because of the rocky nature of the terrain and pressures involved.

Pipeline will be installed using a dozer ripper and/or trencher on all portions within the Lake Mead National Recreation Area and all other areas where terrain permits. In those sections of BLM administered land where the terrain is too rough for the trencher, a backhoe or small trackhoe will be used.

Stipulations:

Standard Archaeological Stipulations

1. Any surface or sub-surface archaeological, historical, or paleontological remains discovered and not covered in the CRPR during construction, maintenance, or use shall be left intact; all work in the area shall stop immediately and the BLM Office Field Manager for the Arizona Strip District (435-688-3301) shall be notified immediately. Commencement of work shall be allowed upon clearance by the BLM Office Field Manager in consultation with the Archaeologist.
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Monitoring:

Monitoring of the pipeline system would consist of inspections by NRCS and BLM during construction of the three phases to ensure compliance with the terms and conditions of the Lease and permit. Periodic inspections would be conducted by BLM specialists on an annual basis or as determined necessary. Monitoring may also be conducted by the grazing permittee in cooperation with BLM specialists.

RATIONALE:

The decision to allow the proposed action does not result in any undue or unnecessary environmental degradation and is in conformance with the Arizona Strip District Resource Management Plan, as amended. In addition, the decision provides a more reliable water system which allows for better livestock distribution out of the canyon bottom and provides more dependable water sources for wildlife. The decision also implements a recommendation from the Rangeland Resource Team made during the Standards for Rangeland Health field trip, which addressed livestock distribution and lessening livestock impacts in the bottom of Whitmore Canyon.

Dennis Curtis, BLM, GCPNM Manager

Date

Jeffrey S. Bradybaugh, NPS, GCPNM Superintendent

Date

Big Spring Water Pipeline

Section 4 Permit/Lease AZA-27495

